

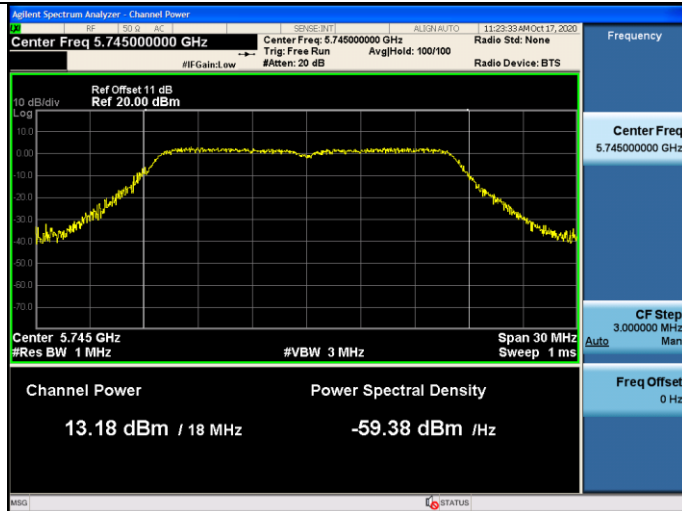
FCC ID: 2AU3BU9W34

U-NII-3 Band:

ANT B

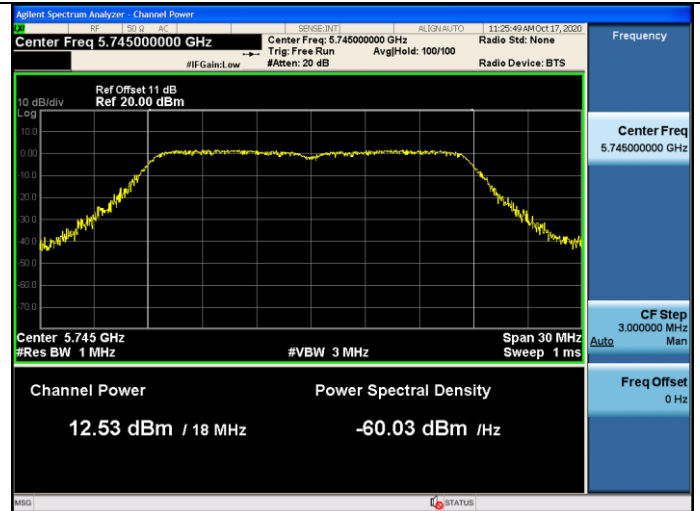
11a

5745MHz

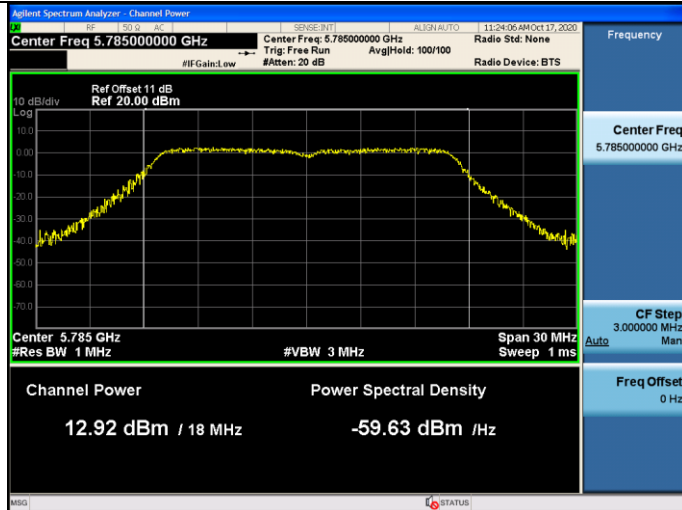


11n HT20

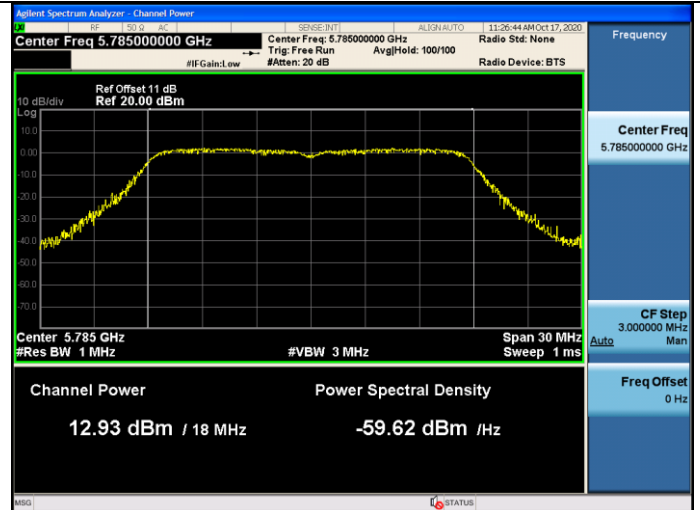
5745MHz



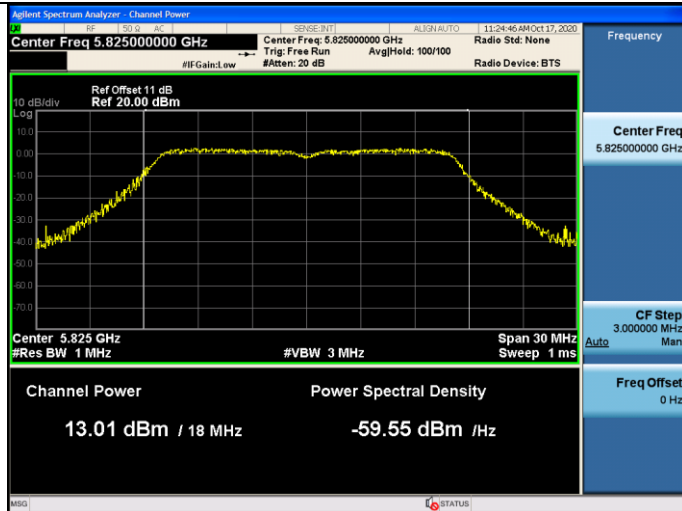
5785MHz



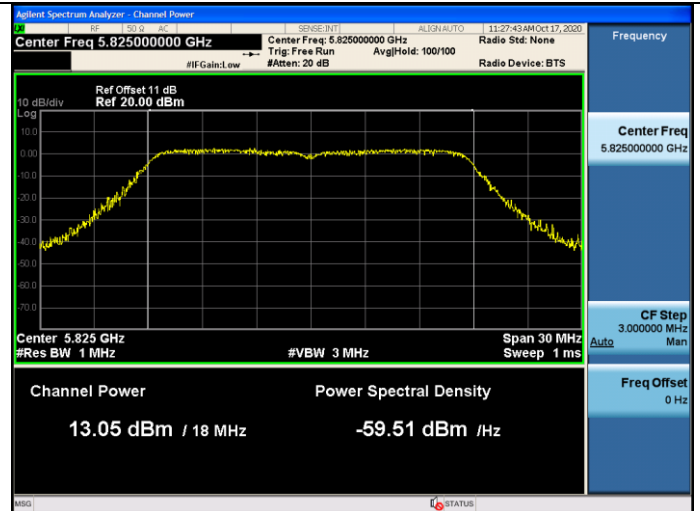
5785MHz



5825MHz

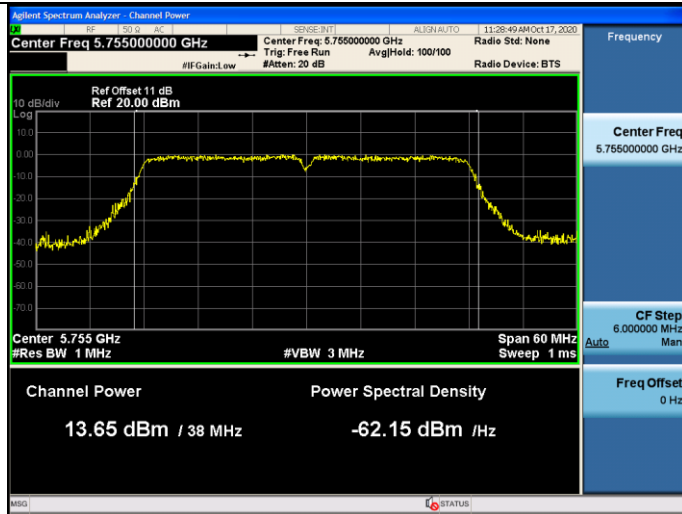


5825MHz

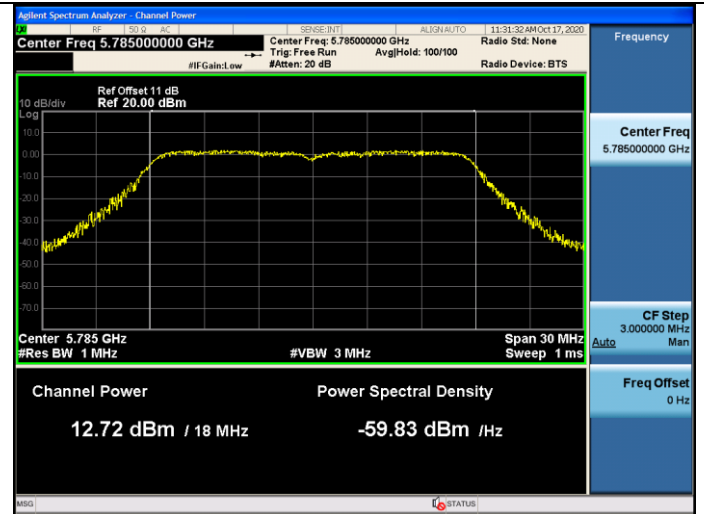


11n HT40

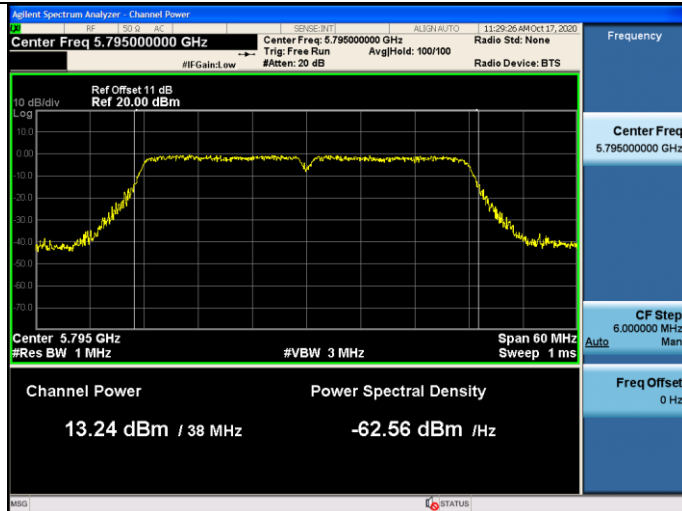
5755MHz



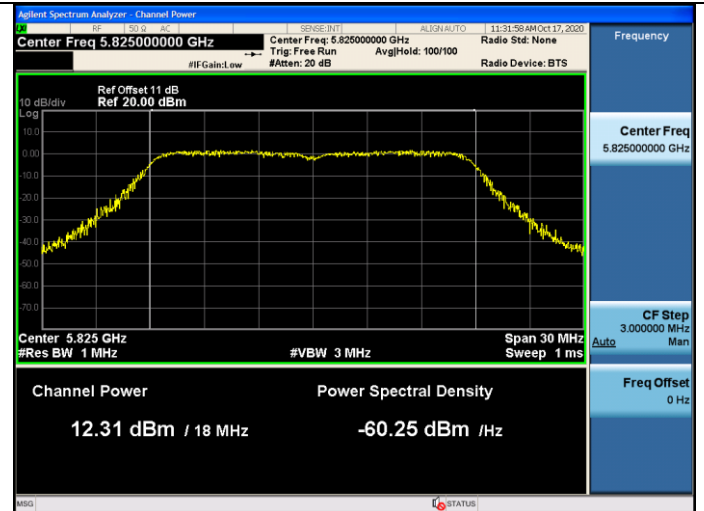
5785MHz



5795MHz

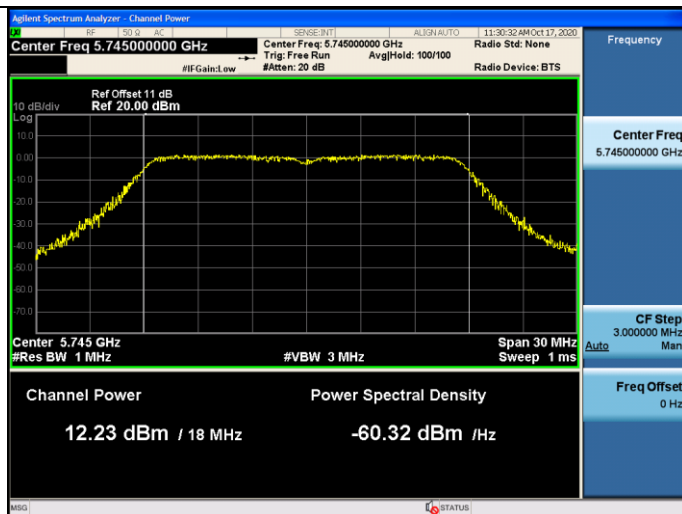


5825MHz



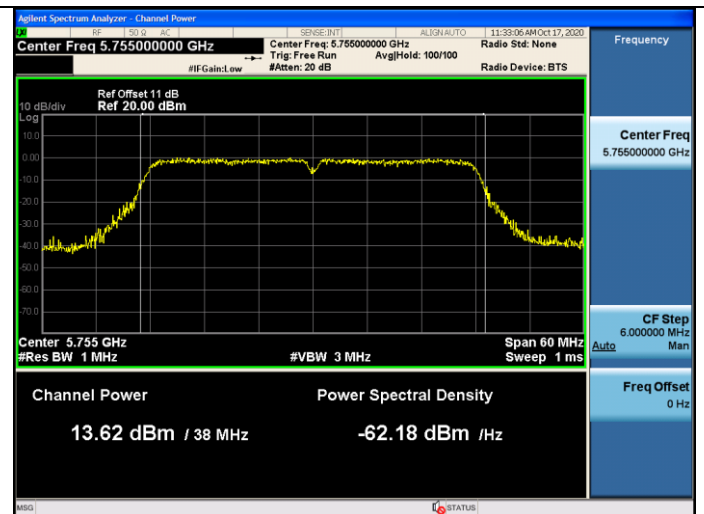
11ac VHT20

5745MHz

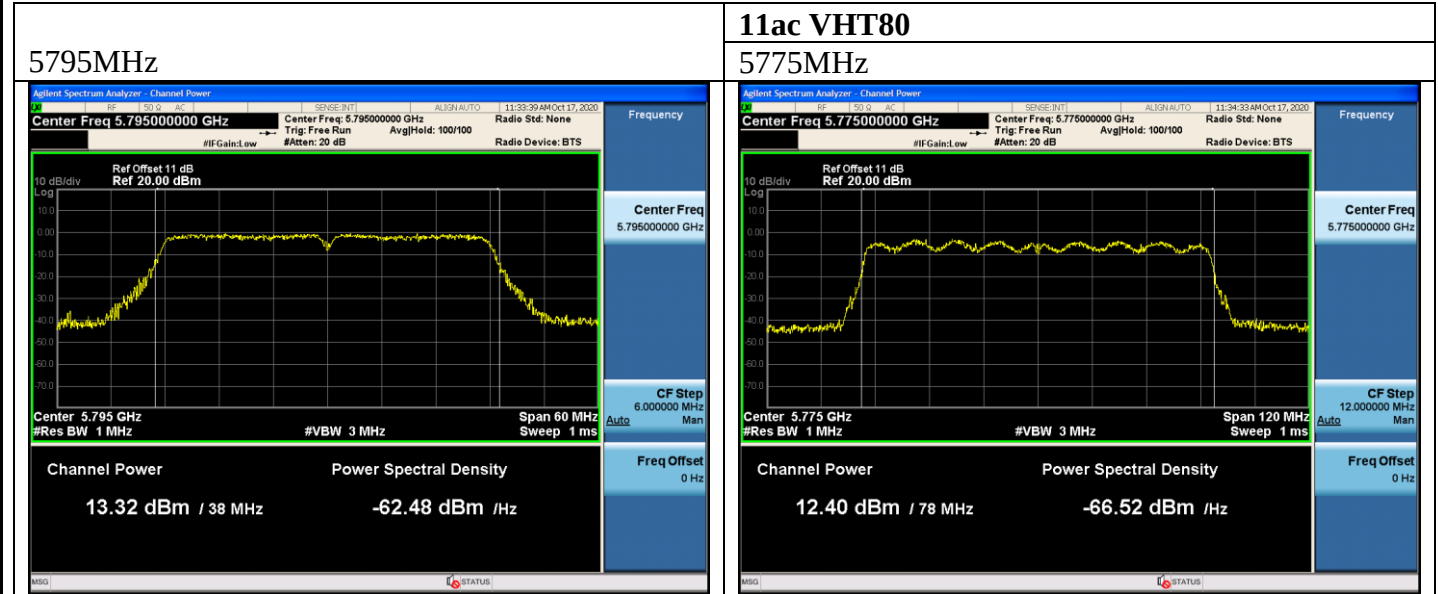


11ac VHT40

5755MHz



FCC ID: 2AU3BU9W34



8. EQUIVALENT ISOTROPIC RADIATED POWER TEST

8.1. Test Procedure

Use the test method described in ANSI C63.10 Annex G :

- (1) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator ,set the Spectrum Analyzer as below:

Span: Zero

RBW:100KHz

VBW:100KHz

Read out the duty cycle(X) of the transmitter and record as X

- (2) The channel power measure function of spectrum Analyzer was used to measure out average output power of transmitter.
- (3) Calculated e.i.r.p according to the formula: Read + Cable loss + Atten loss + Antenna Gain + $10\log(1/x)$
- (4) Repeated test at the lowest, the middle, and the highest frequency of the stated frequency range.

8.2.Test Results

U-NII-1 Band:

EUT: WiFi module		
M/N: U9W34		
Test date: 2020-10-17	Pressure: 102.5±1.0 kpa	Humidity: 53.1±3.0%
Tested by: Leo	Test site: RF site	Temperature:22.6±0.6 °C

Test Mode	Frequency (MHz)	EIRP (dBm)	
		ANT A	ANT B
11a	5180	15.00	13.03
	5200	14.76	13.14
	5240	15.12	14.31
11n HT20	5180	14.48	13.36
	5200	14.31	13.74
	5240	15.01	13.79
11n HT40	5190	15.31	13.09
	5230	15.16	13.54
11ac VHT20	5180	14.02	13.27
	5200	14.27	13.39
	5240	14.79	12.99
11ac VHT40	5190	15.42	14.28
	5230	15.09	13.37
11ac VHT80	5210	14.79	14.03
Conclusion: PASS			

9. SPECTRAL DENSITY TEST

9.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Apr.12,20	1 Year
2.	Attenuator	Agilent	8491B	MY39269201	Oct.12,20	1 Year
3.	RF Cable	EMCI	EMC102-KM-KM 3500	170702	Apr.12,20	1 Year

9.2. Limit

Band 5150-5250 MHz:

The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

Band 5725-5850 MHz:

The power spectral density shall not exceed 30 dBm in any 500 KHz band.

9.3. Test Procedure

For the Band 5.15-5.25GHz:

The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1MHz RBW and 3MHz VBW; Detector: RMS mode.

For the band 5.725-5.85 GHz:

The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1MHz RBW and 3MHz VBW, RMS Detector.

So use the test method described in KDB789033 clause E

- 1) Set the RBW=100kHz and $VBW \geq 3$ RBW
- 2) Number of points in sweep ≥ 2 Span / RBW. (This ensures that bin-to-bin spacing is $\leq$ RBW/2, so that narrowband signals are not lost between frequency bins.)
- 3) Sweep time = auto
- 4) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- 5) Use the "peak search" function of spectrum analyzer find the max value, then add $10\log(500\text{kHz}/\text{RBW})$ to the measured result.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

9.4. Test Results

U-NII-1 Band:

EUT: WiFi module		
M/N: U9W34		
Test date: 2020-10-19~21	Pressure: 102.5±1.0 kpa	Humidity: 53.1±3.0%
Tested by: Leo	Test site: RF site	Temperature: 22.6±0.6 °C

Test Mode	Frequency (MHz)	Power density (dBm/MHz)		Limit (dBm/MHz)
		ANT A	ANT B	
11a	5180	1.583	1.675	11
	5200	1.144	1.063	
	5240	2.146	1.862	
11n HT20	5180	1.338	1.840	11
	5200	1.654	1.334	
	5240	2.129	2.276	
11n HT40	5190	-0.867	-2.679	11
	5230	-1.075	-2.047	
11ac VHT20	5180	0.765	0.717	11
	5200	1.335	0.875	
	5240	2.020	1.030	
11ac VHT40	5190	-1.248	-1.146	11
	5230	-1.143	-1.665	
11ac VHT80	5210	-3.785	-3.235	11
Conclusion: PASS				

U-NII-3 Band:

EUT: WiFi module		
M/N: U9W34		
Test date: 2020-10-19~21	Pressure: 102.7 ±1.0 kpa	Humidity: 54.1 ±3.0%
Tested by: Leo	Test site: RF site	Temperature: 23.4 ±0.6 °C

Test Mode	Frequency (MHz)	Power density (dBm/500KHz)		Limit (dBm/500KHz)
		ANT A	ANT B	
11a	5745	-1.059	-1.074	30
	5785	-0.107	-0.139	
	5825	0.064	-0.752	
11n HT20	5745	-0.830	-0.113	30
	5785	-0.198	-0.618	
	5825	-0.594	-0.098	
11n HT40	5755	-3.198	-3.281	30
	5795	-3.713	-3.171	
11ac VHT20	5745	-0.827	-0.504	30
	5785	-1.040	-0.309	
	5825	-0.872	-0.821	
11ac VHT40	5755	-3.380	-3.428	30
	5795	-3.520	-2.833	
11ac VHT80	5775	-6.608	-6.524	30
Conclusion: PASS				

Note: The total result = Reading + 10 log(500kHz/100kHz)

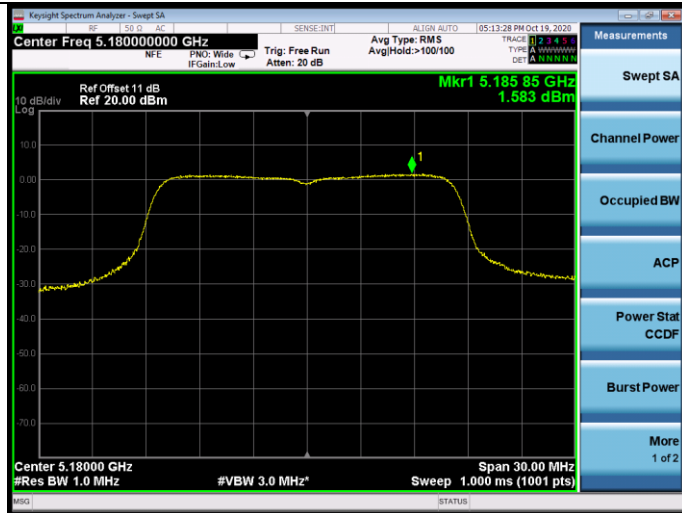
FCC ID: 2AU3BU9W34

U-NII-1 Band:

ANT A

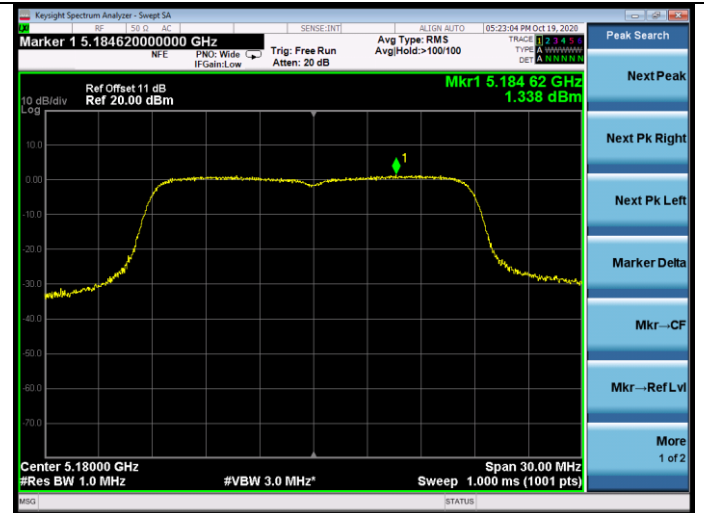
11a

5180MHz

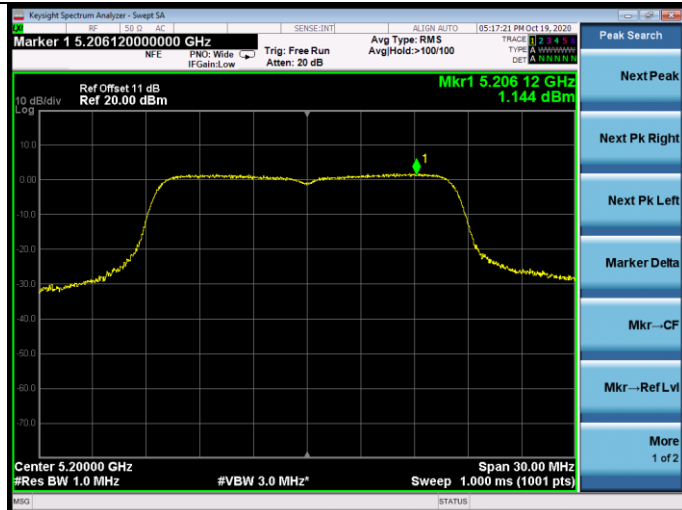


11n HT20

5180MHz



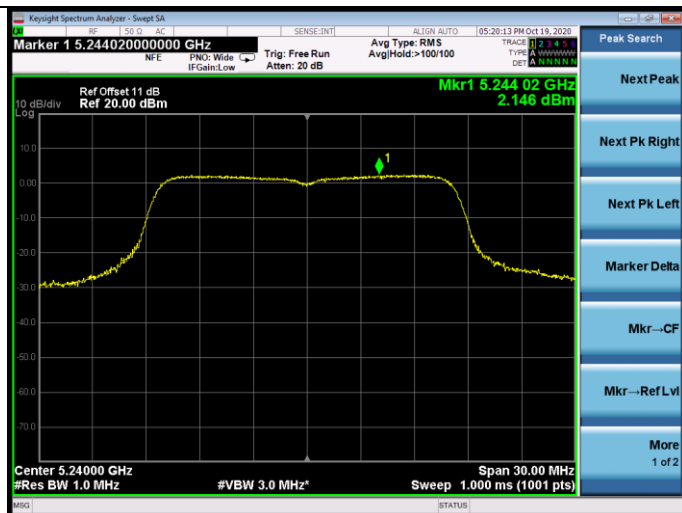
5200MHz



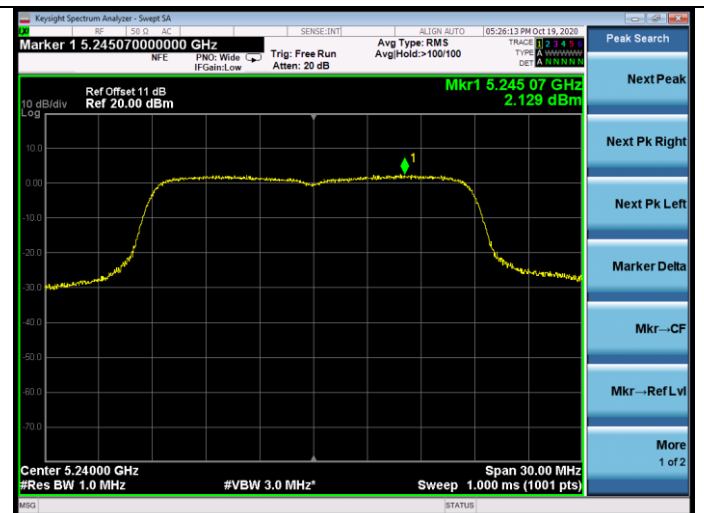
5200MHz



5240MHz



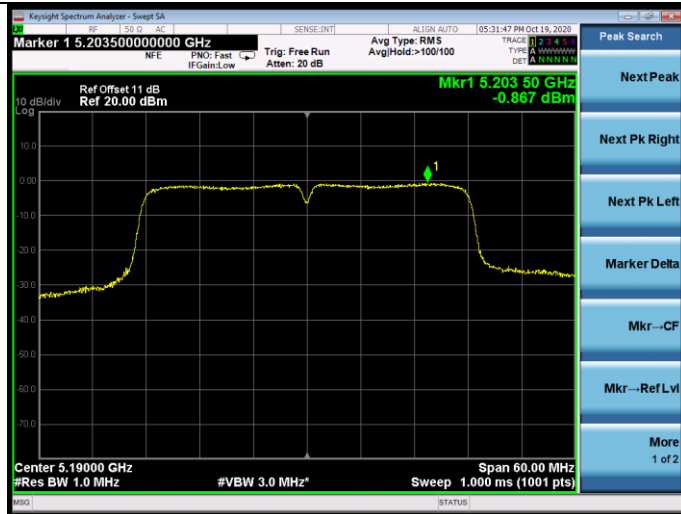
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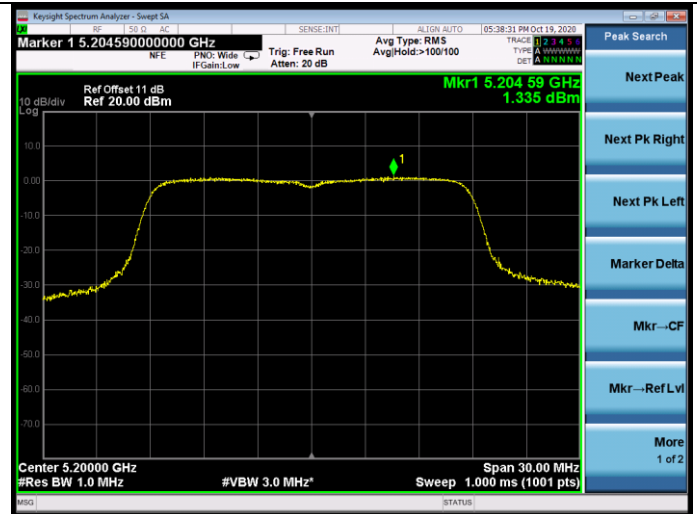
FCC ID: 2AU3BU9W34

11n HT40

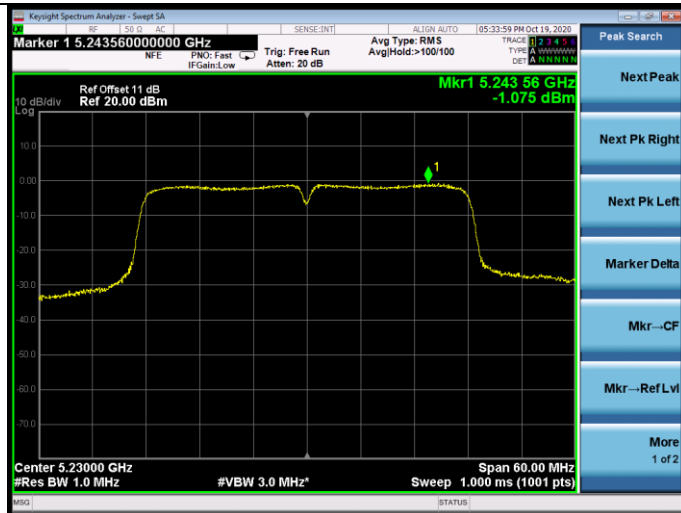
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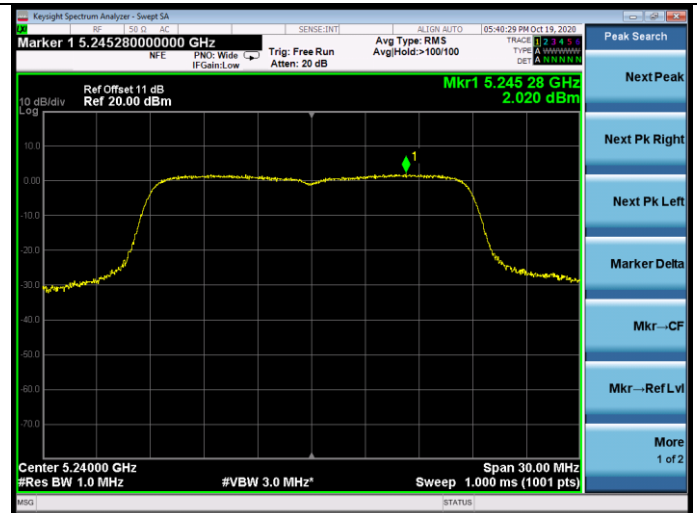
5200MHz



5230MHz

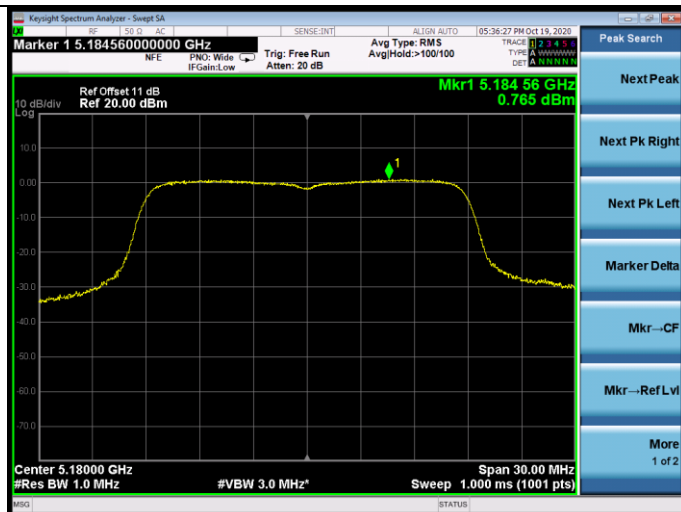


5240MHz



11ac VHT20

5180MHz

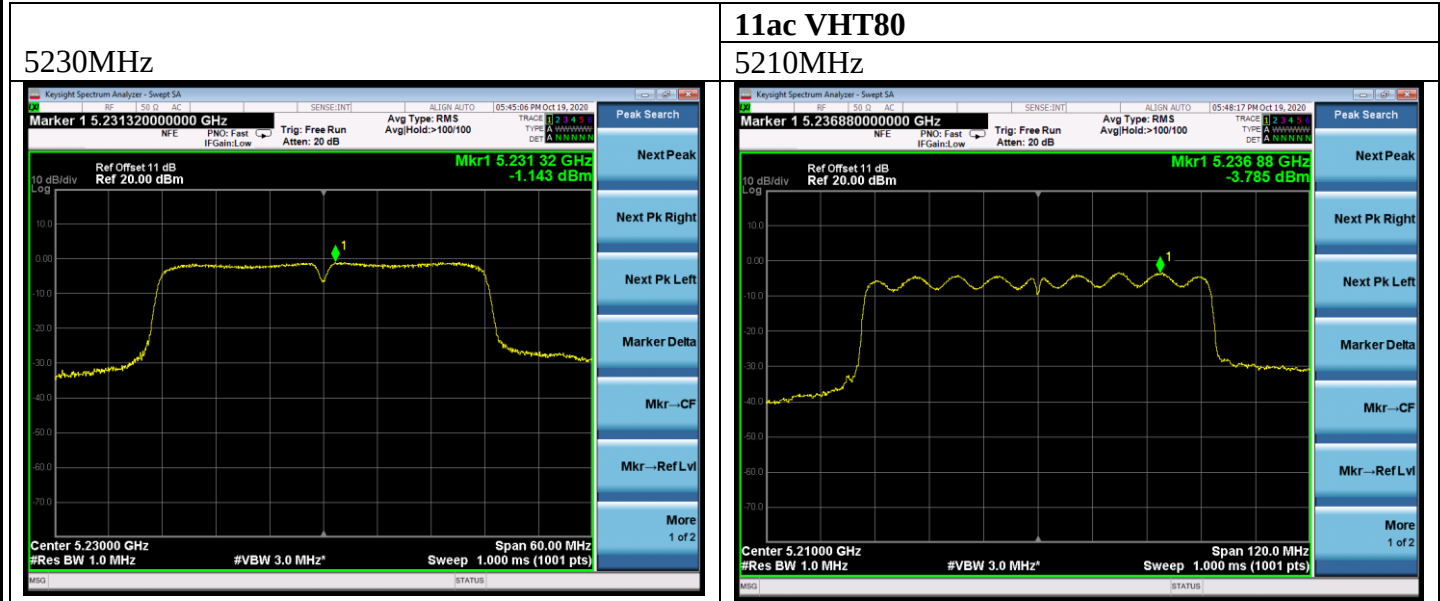


11ac VHT40

5190MHz



FCC ID: 2AU3BU9W34



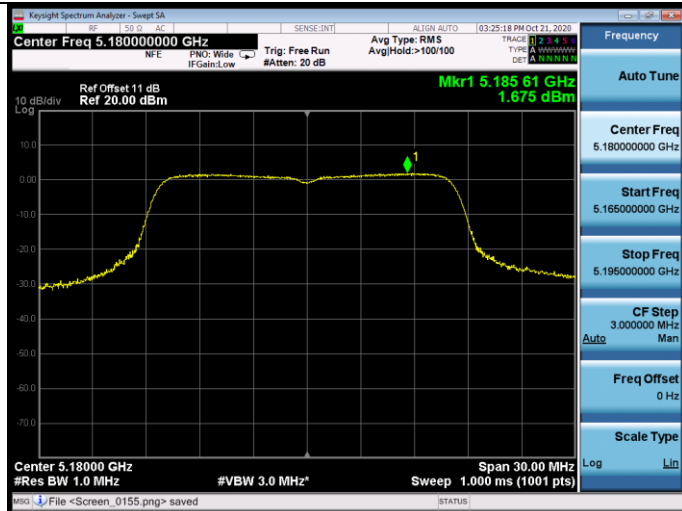
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U-NII-1 Band:

ANT B

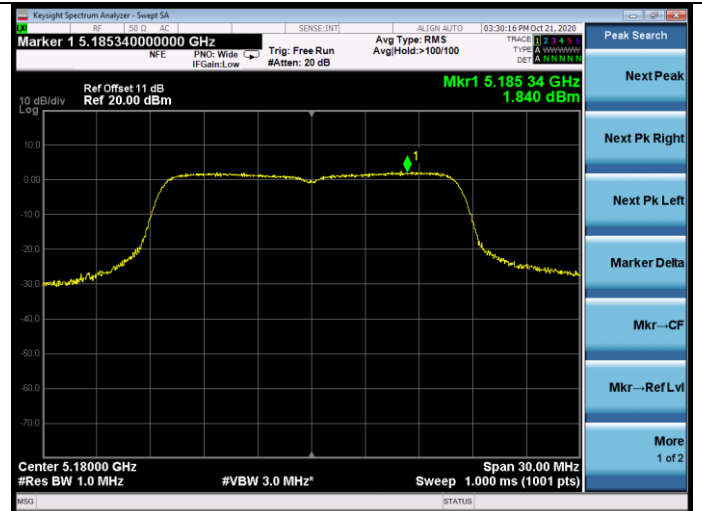
11a

5180MHz

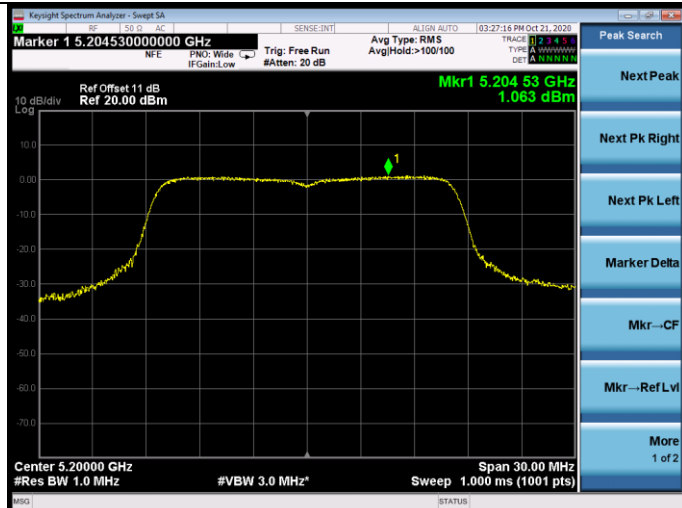


11n HT20

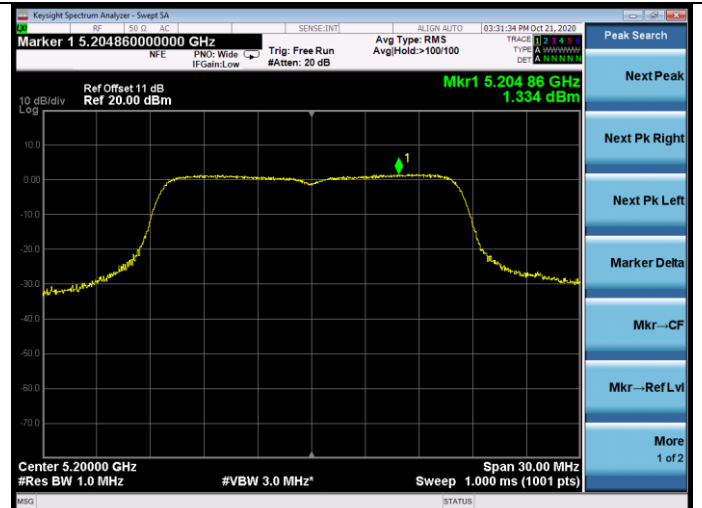
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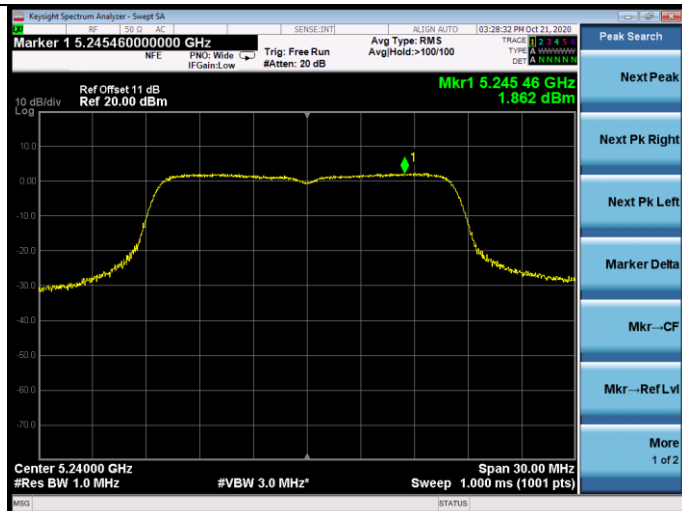
5200MHz



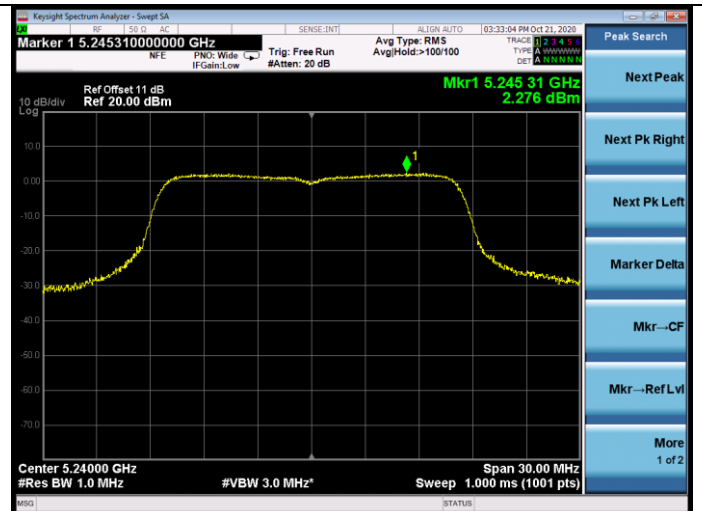
5200MHz



5240MHz



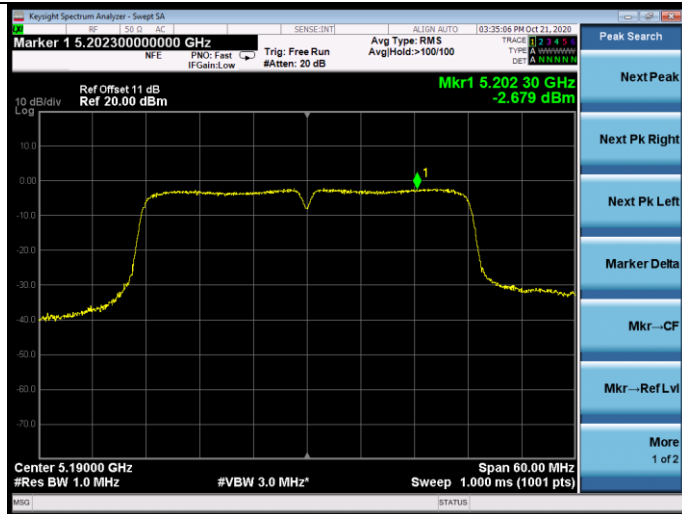
5240MHz



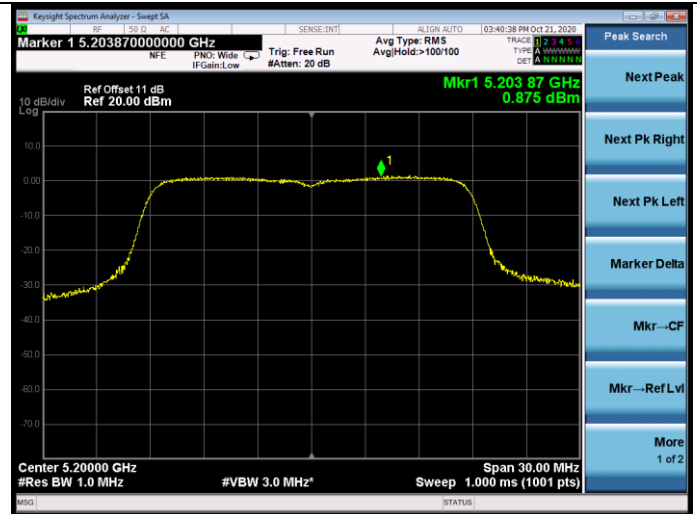
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11n HT40

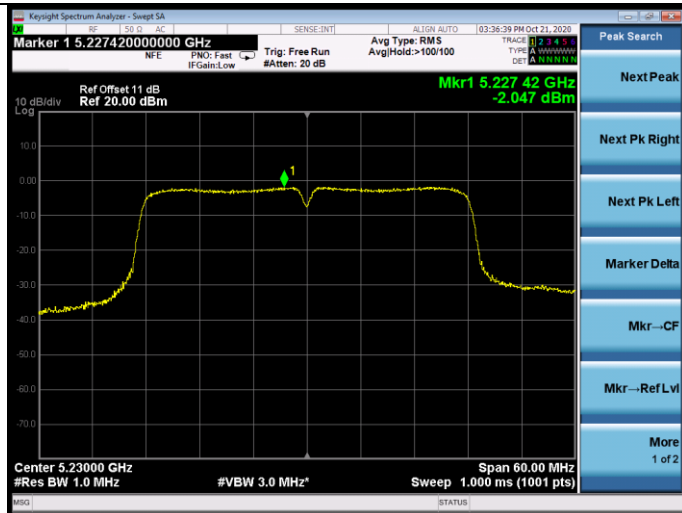
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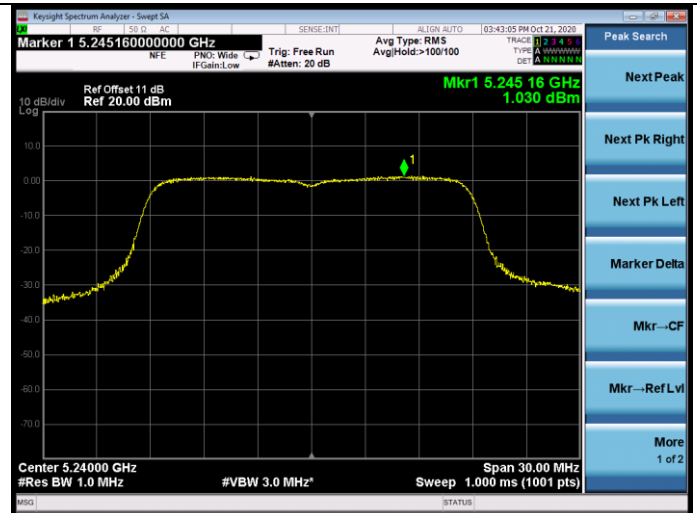
5200MHz



5230MHz

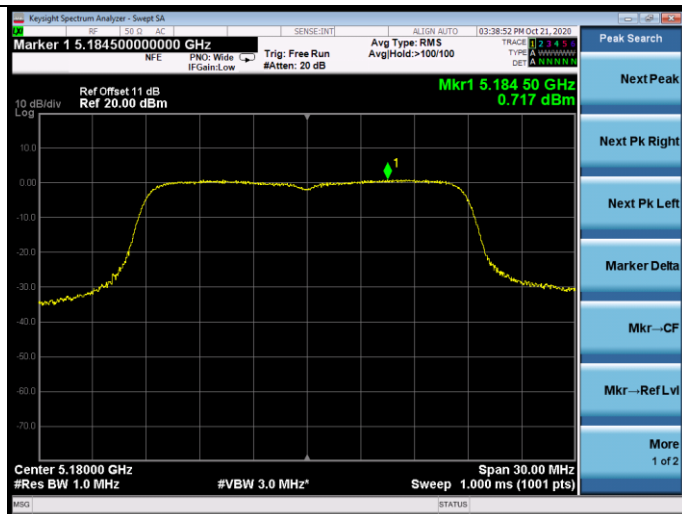


5240MHz



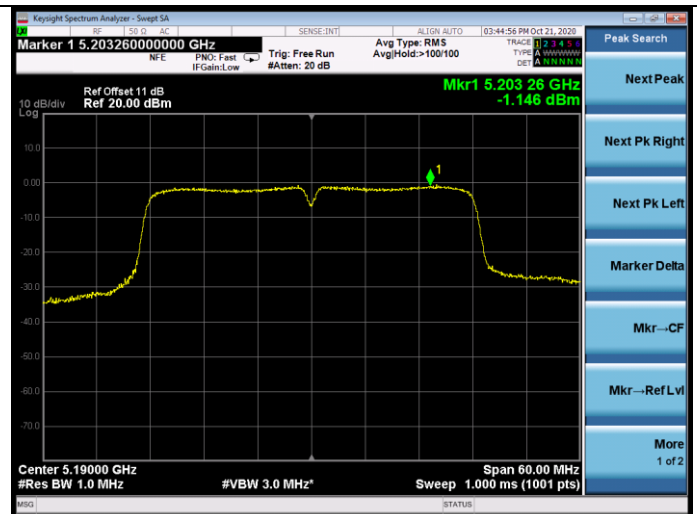
11ac VHT20

5180MHz

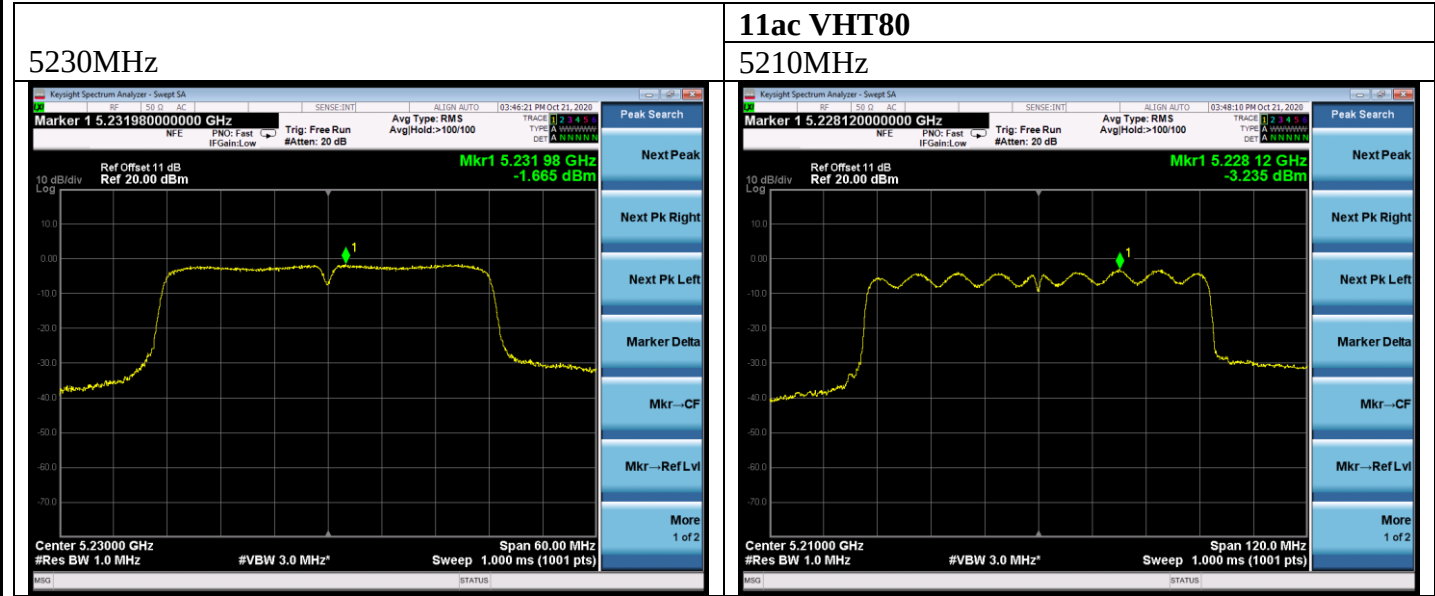


11ac VHT40

5190MHz



FCC ID: 2AU3BU9W34



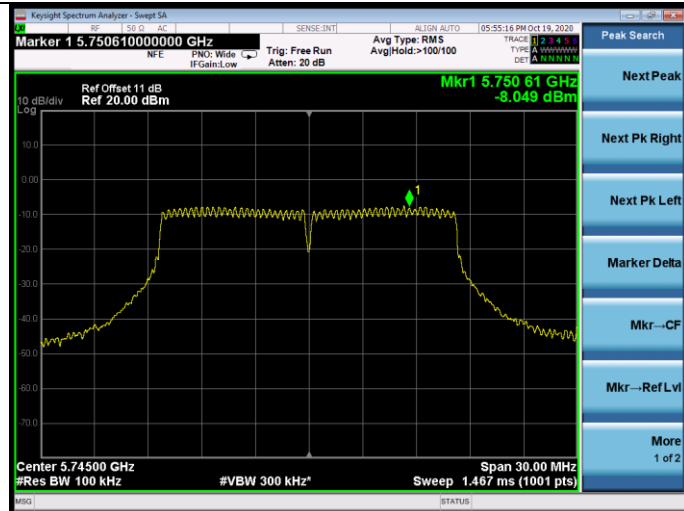
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U-NII-3 Band:

ANT A

11a

5745MHz

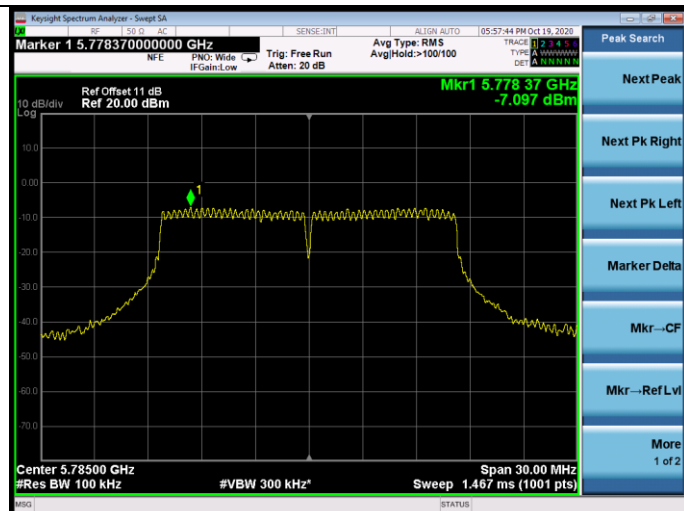


11n HT20

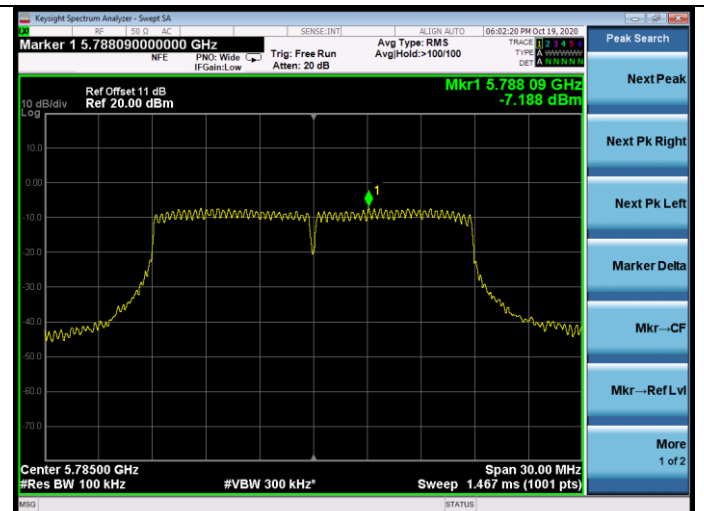
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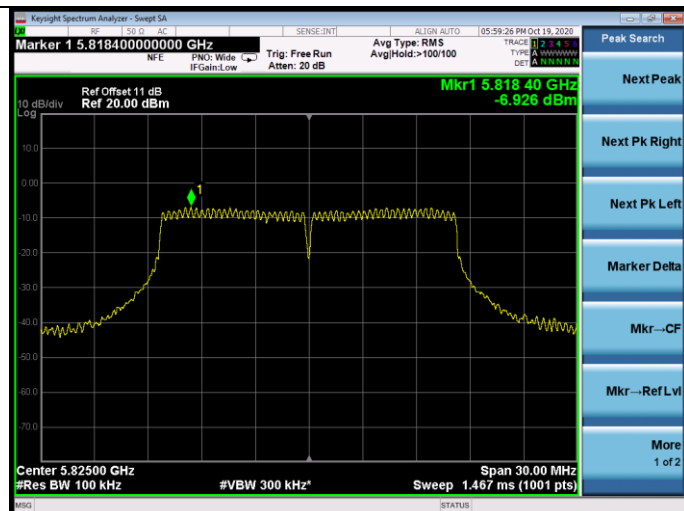
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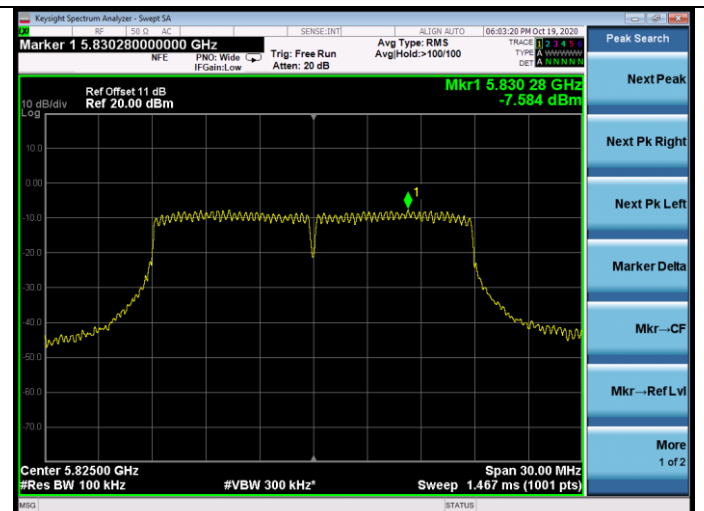
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5825MHz



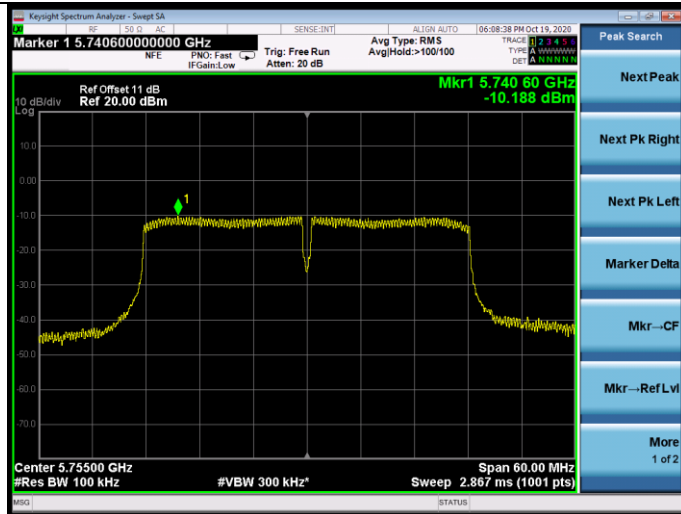
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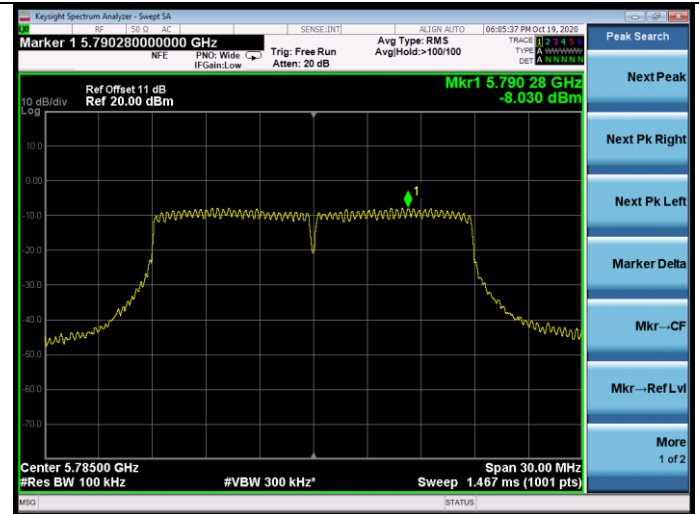
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11n HT40

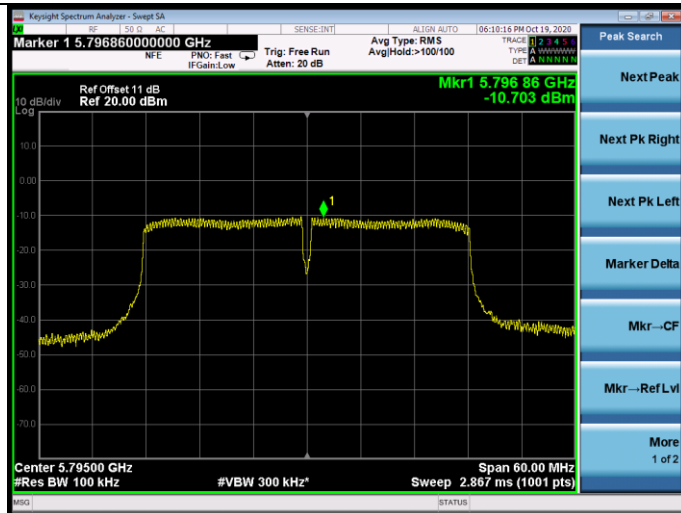
5755MHz



5785MHz



5795MHz

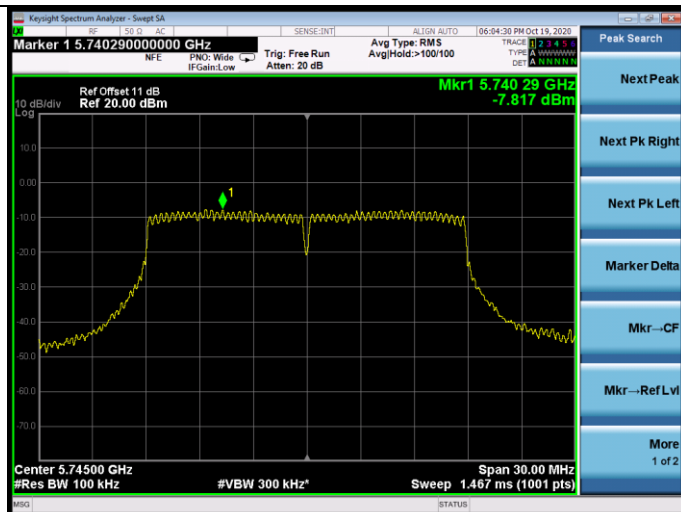


5825MHz



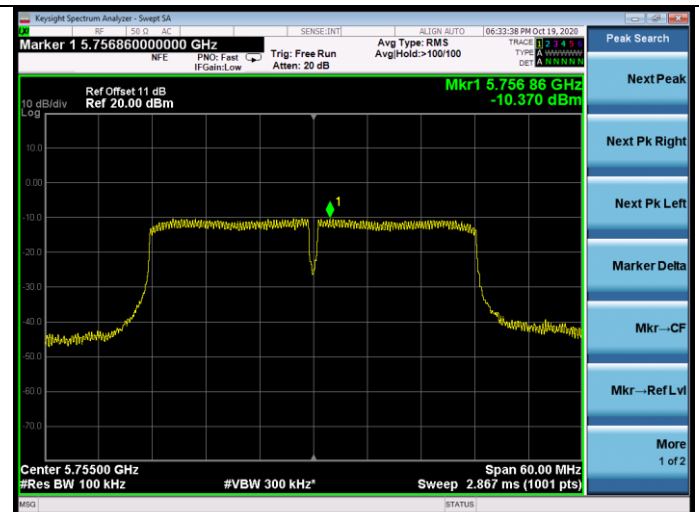
11ac VHT20

5745MHz



11ac VHT40

5755MHz



FCC ID: 2AU3BU9W34

